

The mines are full depth, but always have the entrance hole, and sometimes a separate exit hole, on the underside of the leaf. They occur at any point along the leaf. The larva most commonly mines upwards from the entrance hole. The mine is devoid of frass, which is ejected from the point of entry (Fig. 9).

The larva begins by making a mine under 1 mm wide, but locally widened, and around 12 mm long. It then moults. This mine is lined near the entrance with an opaque, robust layer of silk. Extending along the underside of the leaf for about the length of the larva either end of the entrance hole there is a fine, suspended film of silk, beneath which the larva emerges to excrete. Frass is sometimes caught up in this silk or around the entrance hole (Fig. 10).

First and some second instar mines were found at Mucking on 26.viii.1984. The second instar repeats the features of the mines of the first, except that the mine is now about 2 mm wide and typically 25 mm long. The larva begins by spinning the silken roof of about its own length above the proposed point of entry. The opaque silken mat within the mine is on the lower surface and extends for about the length of the larva from the entrance hole. The external silken film is not repaired when damaged.

The third instar makes mines up to 70–100 mm long, with frass accumulating at one end of the older mines. The larva leaves the mine for the winter. On 17.vi.1985 I found six mines, starting very narrow and with frass over their entire length. These all contained dead larvae, one being a husk full of hymenopterous cocoons.

The larva is white, cylindrical, with well-developed prolegs with crochets. The head is prognathous, square in front, with the mandibular area projecting. The larva is very active, wriggling backwards and forwards with equal facility (Figs 11 & 12).

I have not found the larvae in the lagoons behind sea walls, where the plant grows in deep water. At Mucking they are mainly round the edge of the reedbed, adjoining a dry bank or a wet field margin. At East Mersea on 5.ix.1989 many mines were already empty. The colony was almost confined to a then-dry ditch running perpendicular to the usual sea-wall lagoon.

There is already one linear miner, *Elaschista scirpi* Staint., recorded from *Scirpus maritimus* at a different season, but I have never found it. *E. scirpi* is well represented in the Hering mine herbarium, but there are no *M. moyses* there. Possibly a Continental foodplant will be found to be *Scirpus sylvaticus*, which offers similar conditions inland.

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SHORT COMMUNICATIONS

Xylophagus cinctus Degeer (Diptera: Xylophagidae) new to Wester Ross.—A visit to Scotland to search for this and other insect species was successful in discovering this 'old pine forest' relict away from the well-known sites around the Cairngorm Massif. Larvae were found beneath bark on a fallen pine close to the Mountain Trail in Beinn Eighe National Nature Reserve in Wester Ross (NH 0064), 4.viii.1989. This

site is some 100 km to the north-west of any of the previously known sites. The Reserve includes a large expanse of open pine forest, and also has other 'old pine forest' species, notably the hoverfly *Callicera rufa* Schummel (I. MacGowan, pers. comm.) and the beetle *Pyropterus nigroruber* (Deg.). The latter was found by O. W. Richards in 1953 but never published to my knowledge—the specimen is now in the collection of the National Museum of Scotland at Edinburgh. Dead birch timber at Beinn Eighe was found to contain larvae of *X. ater* sensu auct. Brit. not Meig.

The larvae were initially identified using the key in Brindle (1961), and subsequently confirmed using Krivosheina & Mamayev (1972).

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REFERENCES

- Brindle, A. 1961. Taxonomic notes on the larvae of British Diptera. 2. The genus *Xylophagus* Meigen (Rhagionidae). *Entomologist* 94: 144–148.
- Krivosheina, N. P. & Mamayev, B. M. 1972. A review of Palearctic species of the genus *Xylophagus* Meig. (Diptera, Xylophagidae). *Ent. Rev. Wash.* 51: 258–267.

***Polistichus connexus* (Fourcroy) (Coleoptera: Carabidae) on Wimbleton Common**—In the course of a pitfall-trapping exercise this year, on Wimbleton Common, I caught a single specimen of *Polistichus connexus* in a trap on 14.viii.1990. The trap was in heathland in the south east of the common, near the site of the Bluegate Gravel Pit, the ground vegetation being grassland with heather and scrub growing amongst it. The soil on the common is acidic, underlain with gravel and clay. Other carabids trapped in this and nearby traps included *Carabus nemoralis* Muller, O. F., *Dyschirius globosus* (Herbst), *Pterostichus cupreus* (L.), and *Harpalus rufipes* (Deg.) as well as *Pterostichus madidus* (F.) and *Nebria brevicollis* (F.). Overall the catch in heathland was much lower in numbers of specimens than in adjacent woodland.

The occurrence of *Polistichus connexus* so far from the coast is rather unusual. Donisthorpe (1939) did, however, record it from Windsor Forest, and Mr. A. A. Allen has caught it this summer at m.v. light in the London area (Allen, 1991). If the species is extending its range, the long hot summers we have had recently may be a factor.

I thank Dr M. Luff of the Department of Agricultural Biology, University of Newcastle upon Tyne for confirming the identification.—Martin Henderson, 13 Kimble Road, Collier's Wood, London SW19 2AU.

REFERENCES

- Allen, A. A. 1991. *Polistichus connexus* Fourc. (Col.: Carabidae) at light in suburban West Kent. *Ent. Rec. J. Var.* 103: 6.
- Donisthorpe, H. St.J. K. 1939. *A preliminary list of the Coleoptera of Windsor Forest*, London, Lloyd, p. 20.